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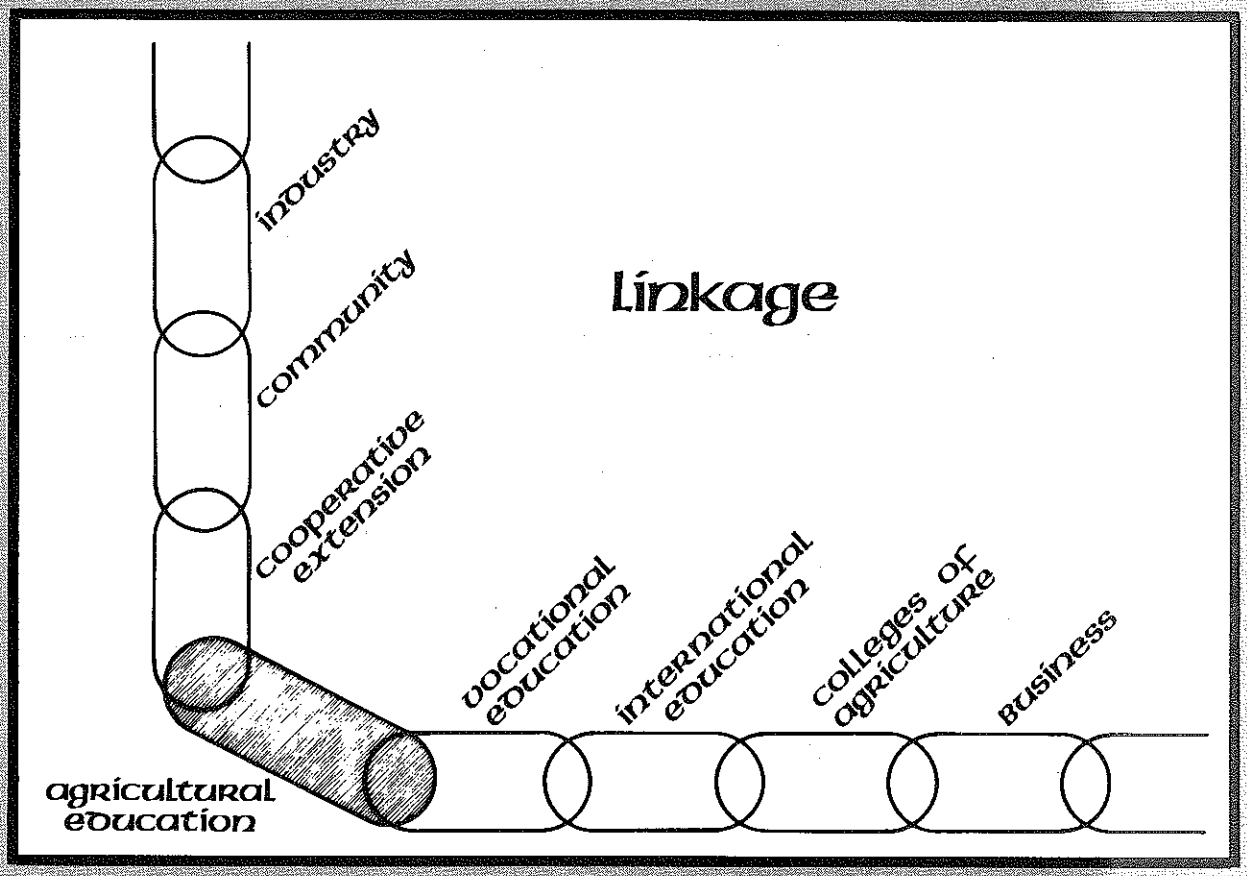


## THEME: Relationships With Agricultural/Educational Agencies

## Finding Help When Help Is Needed — The AVA Yearbooks

*(Continued from Page 3)*

best. This Yearbook is a good source of information for individuals who are concerned about the future. History, forecasting, trends, challenges, and human resource development are each treated from the perspective of 21 vocational educators, or persons highly knowledgeable of the future.

The other Yearbooks are:

CONTEMPORARY CONCEPTS IN VOCATIONAL EDUCATION, Gordon F. Law, ed., 1971
THE INDIVIDUAL AND HIS EDUCATION, Alfred H. Krebs, ed., 1972
CAREER EDUCATION, Joel Magisos, ed., 1973
THE PHILOSOPHY FOR QUALITY VOCATIONAL EDUCATION PROGRAMS, Melvin Barlow, ed., 1974
DEVELOPING THE NATION'S WORK FORCE, Merle E. Strong, ed., 1975
VOCATIONAL EDUCATION FOR SPECIAL GROUPS, James E. Wall, ed., 1976
VOCATIONAL EDUCATION AND THE NATION'S ECONOMY, Warren G. Meyer, ed., 1977
COMPREHENSIVE PLANNING FOR VOCATIONAL EDUCATION: A GUIDE FOR ADMINISTRATORS, Carl F. Lamar, ed., 1978
VOCATIONAL INSTRUCTION, Aleene A. Cross, ed., 1980

Individuals with interests in areas treated by the Yearbooks would do well to obtain and read the appropriate volumes. They are available from the American Vocational Association, 2020 North Fourteenth St., Arlington, Virginia 22201. (Prices range from $8.00 to $16.00.)

THEME

# Relationships with Agricultural and Educational Agencies

BY JIMMY G. CHEEK, THEME EDITOR
*(Editor's Note: Dr. Cheek is Associate Professor, Department of Agricultural and Extension Education, University of Florida, Gainesville, Florida 32611.)*

Linkage is a relatively new term coined by educators to denote the importance and necessity of relating to others with similar aspirations, goals, and duties and to others within similar organizations. This process of building relationships between agricultural education and other agricultural and educational agencies has always been an important aspect of our programs because all groups involved reap the rewards of collaborative efforts.

The importance of maintaining and expanding these linkages has never been more important; the success of our programs are dependent upon these linkages. However, organizations and agencies are becoming more specialized and complex. As a result, linkage becomes more difficult, communication becomes harder, and establishing viable relationships takes more effort. A multitude of demands is being placed on all organizations. The opportunity to become involved with a cadre of projects, activities, and relationships exists. However, if agricultural education is to fulfill its mission, it is important that appropriate linkages be established and maintained.

Why are relationships between other agricultural and educational agencies important? Why should agricultural educators work to develop such relationships? They provide the vehicle for:

- Stimulating an exchange of information.
- Identifying problems existing within the agricultural and educational communities and provide a mechanism to find working solutions to overcome these problems.
- Developing channels of cooperation and communication.
- Shaping and implementing policies and programs of mutual benefit.
- Encouraging innovation by sharing new ideas and concepts.
- Creating good public relationships.
- Developing an understanding of the purposes of agricultural education.
- Providing agricultural educators an opportunity to develop an understanding of other organizations and agencies.

What relationships should be developed? While a myriad of possible relationships exist, some of the most important relationships that need to be developed and strengthened are those involving agricultural education and:

- The Cooperative Extension Service.
- Other vocational education programs.
- The community.
- Other teachers and university faculty.
- Colleges of agriculture.
- Administrators and counselors.
- International agricultural programs.
- Agricultural agencies.



For relationships such as these to exist and prosper, each participant must find the relationship mutually reinforcing and rewarding. Relationships will tend to become marginal or non-existent when mutual rewards cease or get out of proportion to the contribution required. Each participant in the relationship must perceive that the rewards earned, as a result of the relationship, balance with the investment in the relationship. Thus, if viable relationships are to exist, it is essential that we not only receive benefits but that we also invest time for the benefit of others involved.

It is our responsibility as professional agricultural educators to foster linkage with other organizations. Each of us should examine current situations and determine where linkage needs to be strengthened and where relationships need to be established. Then we should develop a strategy to implement our efforts in creating these relationships. This strategy does not need to be elaborate, just functional but it will help us achieve our goal.

This issue of THE AGRICULTURAL EDUCATION MAGAZINE is primarily devoted to a discussion of relationships that exist between agricultural education and other agencies. Teachers, teacher educators, and supervisors should proceed immediately in strengthening and expanding these linkages for the mutual benefits of the programs involved.

### The Cover

Building relationships between agricultural education and other agencies is important. All groups involved reap the rewards of collaborative efforts. (Illustration courtesy of Jimmy G. Cheek, University of Florida.)

THEME

# Cooperation With Community Organizations and Agencies

BY W. WADE MILLER
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One of the challenges vocational agriculture teachers face is that of community service. Normally, it is not a question of becoming involved in community service, but the extent of involvement and selection of activities. One method used by many vocational agriculture teachers to plan their community service activities is to coordinate their efforts with other agencies and organizations. Some of the advantages of this coordination include:

- selection of appropriate activities for your vocational agriculture program,
- definition of your role in projects and activities,
- control over the extent of your involvement,
- participation in activities and projects which serve recognized needs in your community,
- community services can be selected on basis of their educational value to the students, and
- positive publicity for your program.

Once you have decided to coordinate the community service activities of your program with local agencies or organizations, the problem becomes one of how to do it. The natural vehicle to use is the FFA. Under the program of activities of most FFA chapters is the community service standing committee. Many vocational agriculture teachers use this committee to plan and carry out their community service programs. The members of the committee can go to the meetings of local agencies and organizations such as civic clubs, chambers of commerce, community betterment committees, city councils, school boards, and governmental agencies (one example is the Farmers Home Administration) to poll them for ideas.

These ideas can then be taken back to the community service committee and used to plan the upcoming years' activities and projects. Often, one of the agencies or organizations will come to the FFA chapter with an idea in mind. This also can be referred to the community service committee.

The ideas can be discussed and prioritized in the committee meetings and appropriate activities tentatively selected. The committee can send representatives along with the advisor to the agency and organizations involved and work out the details of the cooperation between the FFA and the organization or agency. This cooperation can take many forms. On the part of the agency or organizations, this may include financial assistance, technical or professional services, and/or equipment while the FFA chapter can supply organization, time, and labor.

Community service activities and projects can also contribute to your chapter in another way. The chapter award programs fit very well with many activities and projects selected by FFA chapters. The three national chapter award programs are Building Our American Communities

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## Cooperation With Community Organizations and Agencies

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(BOAC), Chapter Safety Award, and the National Chapter Award.

The Building Our American Communities award program can be used with activities and projects which help to improve the community in some way. Some of these projects could include:

- — building or improving parks and recreation facilities,
- — landscaping of community and school grounds,
- — clean-up of roadsides, and
- — conservation exhibits and demonstrations.

The Chapter Safety Award Program also provides opportunities for cooperation between community organizations on projects such as these:

- — herbicide can crushing and safe disposal,
- — conducting safety campaigns on various subjects,
- — submitting articles on safety to the local newspaper, and
- — elimination of mosquito breeding places.

The National Chapter Award can be supported through community service activities and cooperation by strengthening the FFA chapter's program of activities in the areas of not only community service, but also cooperative activities.

### Three Examples

The following are examples of how three Iowa vocational agriculture programs have coordinated some of their community service activities with local organizations and agencies:

*One of the problems many rural communities face is ambulance service. When the North Benton Ambulance Service of Benton County, Iowa, purchased a new ambulance at a cost of $32,000, one of the organizations they approached to help gather contributions for it was the Vinton FFA Chapter. According to Duane Fischer, advisor, the FFA organized a systematic door to door plan to canvas one part of Benton County. Other activities in which the chapter cooperates with other organizations include herbicide can crushing in cooperation with the local chemical dealers, fruit baskets for residents of the county and Lutheran Homes in cooperation with County and Lutheran Home Administrations, clean-up of fairgrounds with the fair board, assist with hog shows with the Pork Producers Association, and assist with beef shows with the Beef Producers Association.*

*The FFA Ag Museum was opened in 1970 under the sponsorship of the LaPorte City, Iowa, FFA Chapter. In 1974, they received a $5,000 matching fund grant from the National Bicentennial Committee. They purchased the old fire station and town hall, built in 1876, and the adjacent old jail, built in 1911, for the permanent home of the museum. The museam has been featured in "US News and World Report" and the "Washington Post" and is listed in the National Registry of Historic Buildings. The LaPorte City FFA Chapter, with advisor Ronald Borton, has coordinated this project with various civic groups since the inception of the idea. They have now turned the museum over to the city and it is administered by a museum board consisting of five citizens, the LaPorte City FFA Chapter president, and FFA advisor. Exhibits include agriculture and home economics sections, and replicas of a doctor's office, dentist's office, and barber shop. Recently, members of the FFA chapter moved an old log cabin to the museum grounds for reconstruction. Various civic groups are also continuing work on the museum. The museum is only one example of the way that the LaPorte City FFA cooperates with other organizations and agencies.*

*The Jesup FFA Chapter of Jesup, Iowa, is cooperating with the City Council, Community Betterment Organization, Lion's Club, and Garden Club in organizing a new city park which will surround the new tennis courts in Jesup. Dennis Schlagel, advisor, reports that this project is part of a longe range plan by the city's park service and the FFA is cooperating by helping to construct restroom facilities, plant trees, establish a lawn, build benches, and help maintain the new landscaping at the park. This will be a long term project and various community groups will be working on the park and providing financing. Other activities in which Jesup FFA cooperates with other organizations and agencies include a machinery identification program to mark farm equipment in cooperation with county law enforcement authorities and construction of a new press box, concession stand, and storage shed for the football stadium in cooperation with community organizations, the booster club, and school board.*

These are three examples of the way FFA chapters can cooperate and coordinate with other organizations and agencies. All three FFA chapters report positive results in working with others. Some of the benefits the chapter members receive in working with other groups include improving the quality of living in rural communities, developing community services, promoting a sense of pride and initiative, developing community leaders and citizens, and promoting a better understanding on behalf of other organizations of the role of the local FFA chapter in developing the community.

### Cooperation

A good way to summarize the value of cooperating with other groups in community service can be found in the FFA Advisor's Handbook (p. 85):

> Community service activities can take many forms. A study of the needs of the community, a community development plan and a project in natural resources conservation, are but a few types of community services that can be rendered by FFA chapters.
>
> Through participation in community service activities today, FFA members acquire the knowledge and develop the skills they need for tomorrow. At the same time they perform valuable services to assure a brighter future for their families and friends.

Is cooperation between community organizations and agencies and the local FFA chapter worth the effort? Yes!



THEME

# The C's: Supplements to Enrich The Vo-Ag/Extension Relationship

"The county agent? I know who he is, but that's about all. He's never visited our agriculture department."

"Being a new teacher, it's hard to identify good resource people for my classes."

"Extension is having its winter meetings on Thursday nights? But that's the same night that our Adult Farmer classes are scheduled!"

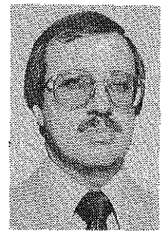
"The extension agent in my county says I can't WORK WITH ADULTS — that's HIS area."

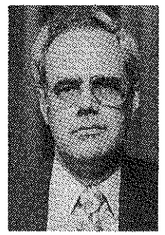
These comments are too often expressed by vocational agriculture teachers and county Extension staff members. The comments themselves reflect the uncertainties and misconceptions of the mutual, reciprocal roles of staff members of both vocational agriculture departments and county Extension offices. In numerous counties, the vo-ag/Extension relationship is positive, healthy, and strong because both agencies understand, appreciate, and support each other's roles, goals, program efforts, and expertise. In other counties, however, the relationship may be deficient and decline from one of friendly competition for the loyalty and participation of selected audiences to open counter-productive warfare which consumes energies, reduces efficiency, and minimizes educational impact. Misunderstanding and misinterpretation of role similarity are the principal culprits in these deteriorating relationships.

### Role Similarity

Basically, agriculture teachers and Cooperative Extension agent(s) have similar roles in meeting the agricultural education needs of people. Both are "change" agents, individuals who help people make positive changes to solve problems. In the teacher's case, you are charged with the responsibility for working with youth and adults on agriculturally-related needs and problems. Likewise, the Extension agent is dealing with adults and youth (through 4-H), helping them to solve these same problems.

If both of you have similar roles in agricultural education, why is it that we have such a seemingly diverse understanding of roles and communication and coordination of these two individuals or agencies? We believe that this diversity may be due to lack of understanding of one another's roles or functions, lack of individual communication between agents and teachers with common interests, and struggles for "territorial rights." To be more succinct, you, the teacher, and the personnel of the Cooperative Extension Service could possibly be more effective and efficient in determining and accomplishing your respective missions if you supplement your similar roles with three C's: communication, cooperation, and coordination.





By Max B. McGhee and William R. Summerhill

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### Communication

The fundamental element of any relationship is communication, the two-way flow of information via a free interchange of thoughts, opinions, ideas, and facts. Two conditions are necessary for communication to be maximized: (1) each party (agency) must be willing to work in an atmosphere of mutual acceptance and respect, and (2) each party must be willing to establish channels (both formal and informal) for communication.

An atmosphere of mutual acceptance and respect can be realized by putting aside attitudinal barriers and by fostering good will — both rather abstract techniques. Specific steps to establish formal and informal communication channels, however, can be taken.

(1) Take the initiative. Contact the Extension office and make an appointment and visit with the agent(s).

(2) Organize periodic meetings for vo-ag/Extension personnel to share information and plan and coordinate program efforts. Tell the Extension agent about your program, its goals, and needs. Discuss the Extension program, and determine its goals.

(3) Include the Extension agent on your advisory committee or as a consultant to the committee.

(4) Research the agents and your perceptions of the agricultural program. A beginning teacher may have more problems with negative attitudes, so demonstrate your willingness to improve these attitudes. Experienced teachers must be open to comments and suggestions.

(5) Organize a systematic procedure for sharing newsletters, newsbulletins, and other informative materials.

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## The C's: Supplements to Enrich the Vo-Ag/Extension Relationship

*(Continued from Page 7)*

### Cooperation

Through communication, areas of common interest can be identified; working together on these identified interests is cooperation. One of the most obvious examples of cooperation is interagency cooperation in youth and adult programs. Joint endeavors exist between 4-H and FFA, not only in such areas as educational clinics, workshops, and short courses, but also in the planning and conducting of shows, fairs, fund raisers, public relations, and community service.

For example, an educational program on energy-saving techniques for field crop production may be needed. You and the agent could cooperate in planning, organizing, and conducting a variety of activities for youth and adults to improve their awareness, knowledge, and skills in these new energy techniques. Or you may have identified, through the "communication" phase, that the agent needs someone with expertise in livestock judging to help train a 4-H team. You just happen to be **the** livestock judging authority in the area and will be training an FFA team anyway, why not work with both teams? Besides, you need help with a poultry team and that (by coincidence, no doubt) is the agents' forte. Few county or district fairs are organized, planned, coordinated, and conducted exclusively by Extension agents or agriculture teachers. Communicate your desire to help or your need for additional help. More reciprocal involvement in this type of event provides for a less hectic and frustrating job.

### Coordination

Coordination assumes that individuals are "working together" in a more systematic or organized way to deal with common problems. There is an element of planning in coordination that may not be necessary for cooperation. Coordination is essentially the "fine tuning" or "harmonious adjustment" of the cooperative endeavor; it is the integration of program plans and agency resources to achieve maximum efficiency and impact. As stated previously, the roles of vo-ag teachers are similar to those of Extension agents; therefore, why not formally discuss programs and identify areas where programs and activities can be coordinated? This could be accomplished annually by looking at upcoming activities, programs, contests, etc., and determining if there is a need or reason to coordinate the planning, organization, or conduct of any aspect of your respective programs. Successful coordination is based upon the assumption that the parties involved have COMMUNICATED and agreed to COOPERATE. The notion of coordination is relatively useless without a solid foundation of communication and cooperation.

### Jointly Fulfill Missions

The agriculture teacher and the Cooperative Extension agent have common roles and responsibilities in fulfilling the mission of their respective agencies. Through effective communication, cooperation, and coordination, these agency representatives (teachers/agents) can realize greater effectiveness. In this age of energy consciousness, let's not forget the conservation of "human" energy. By supplementing your activities with the C's cited in this article, a more healthy effective relationship can be realized between teachers of agriculture and agents of the Cooperative Extension Service.

Communicate for ideas, cooperate for variety, and coordinate for success!

THEME

# A Spoke In The Wheel

By. Joe W. Kotrlik

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Is vocational agriculture/agribusiness just another vocational program? Or does it have some special characteristics that set it apart from other vocational programs?

If you asked these questions of vocational agriculture/agribusiness teachers across the nation, chances are that most would say that the latter is true — that the vocational agriculture/agribusiness program is one of a kind — that it is different from other secondary vocational programs.

### Unique Qualities

The accomplishments of vocational agriculture/agribusiness teachers lend support to this claim in many ways:

1. The FFA has been molded into one of the best student organizations in the world.
2. The vocational agriculture/agribusiness program has always been known as one that provides, in addition to vocational training, some of the best leadership training available in the public schools.
3. The program continues to be recognized as one that does not end with the last class bell of the day. Instead, it is known as a program that extends into the night, over weekends, and through the summer.
4. Co-curricular activities such as contests, awards, banquets, and other leadership activities are a more important part of this program than of other vocational programs.
5. Home visits are recognized as an integral part of the program — more so than all other vocational programs.



Yes, these and other unique characteristics of the vocational agriculture/agribusiness program do exist. However, this program is similar to other vocational programs in several other respects.

### Commonalities

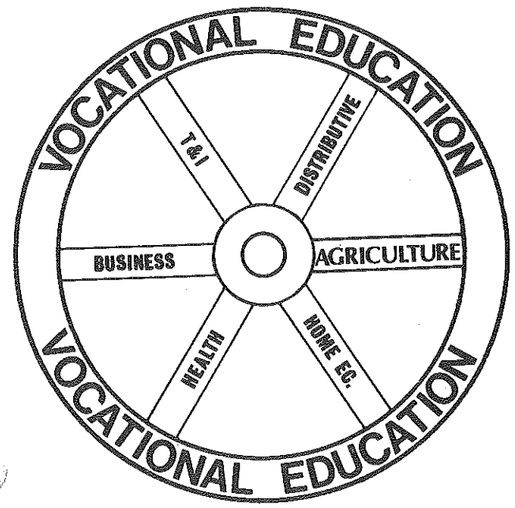
There are commonalities of vo-ag with other vocational programs. For example, all vocational programs have the same primary goals — to prepare students for entry and advancement in the occupation for which they have been trained. All vocational programs are funded by virtually the same sources at the state and federal level. All utilize classroom instruction along with corresponding laboratory experiences. All have vocational student organizations, adult vocational programs, and lay advisory committees as common components of their programs.

So, the question of whether vocational agriculture/agribusiness is just another vocational program has both a "yes" and a "no" answer. It is unique in several ways and in several it is not.

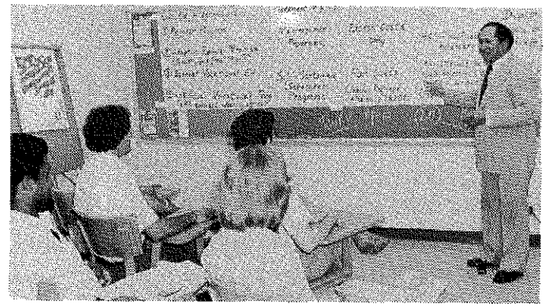
### Taking Advantage of Commonalities

How can teachers of vocational agriculture/agribusiness use this relationship with other vocational programs to their advantage? Since there are many elements common to all vocational programs, how can vocational agriculture/agribusiness teachers work together with other vocational teachers to achieve the greatest efficiency and least duplication of effort?

Many cooperative efforts have been conducted by vocational teachers in the past. One example that is of special value in many schools is the use of joint award banquets. Home economics and agriculture/agribusiness teachers have been conducting joint banquets for years. This type of activity is also possible between agriculture and other vocational programs. The benefits include better public relations and more efficient use of time and money.




**Vocational Agriculture -- a Spoke in the Wheel**



**Dr. Frank Dye of the Louisiana Department of Education serves as a resource person in LSU's course entitled "Vocational Education for Special Needs Students." Vocational agriculture/agribusiness teachers are enrolled in this course along with other vocational educators.**

Another possible area of cooperation is with the planning of publicity for National Vocational Education Week. The vocational teachers in each school or school district could take turns in coordinating radio, television, and newspaper publicity. Cooperation of this type would result in local vocational education programs taking advantage of an excellent public relations opportunity.

Classes can be exchanged which would result in taking advantage of the specialties possessed by individual vocational teachers. For example, agriculture/agribusiness teachers could teach parliamentary procedure to students in other vocational programs while the home economics teachers could provide instruction in consumer economics and the distributive education teacher could provide instruction in business management.

Many vocational teachers have found that joint student activities are beneficial to all involved. For example, vocational clubs (FFA, FHA, FBLA, DECA) have participated in joint tours, camping trips, field trips, and hamburger cookouts. The benefit is that students get the feeling and pride of being a part of a larger group. This fosters a spirit of cooperation among teachers.

Joint public service projects have been conducted successfully in schools of all sizes. For example, in schools where several vocational programs exist, group efforts have been used effectively in service projects. In one mid-sized community, the vocational agriculture/agribusiness students rebuilt the local 4-H club's stock trailer; the vocational paint and body students became involved in the project next by painting the trailer; and finally, the vocational drafting and industrial arts classes combined efforts to letter and paint the name of the 4-H club on the side of the trailer. The result — good job related experiences for all students involved, good public relations for all vocational programs, and the promotion of good relationships among the teachers involved.

### Cooperative Efforts Mean Better Programs

It should be easy to recognize the fact that more effective programs can be developed through cooperative efforts. This topic merits additional thought by teachers — because this is where cooperative efforts can best be initiated.

Yes, agricultural education is a "spoke in the wheel" of vocational education. A very important spoke at that!

THEME

# Relationships Between Vo-Ag And International Education

By Richard W. Tenney
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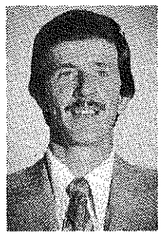


One of the most crucial situations in the world today concerns the relationship of what is known as agricultural education and the international need for education in agriculture. This is readily evident from the headlines of the media as news from around the world is reported by newspaper, radio, and television.

Just as "no man is an island," no incident today can be considered as isolated. We live in a world in which global interdependence is growing daily. No longer can we, who live in a country that is generally recognized as one of the most highly developed in the world, make it on our own.

Generally known as agricultural educators to one another in this country, and often known in other parts of the world as "communicators," "extensionists,", or "community developers;" is there any real difference in the basic objective?

There are many different agricultural and educational agencies at work in the world with a common goal of sufficient food for all. How and through what agencies can agricultural educators work to achieve this goal?

## Global Interdependence

There is an increasing awareness that we live in a globally interdependent world. The United States, once considered as independent and self-sufficient, is struggling to seek out its proper role in a world of accommodation and sharing. We are sharing things that are in short supply such as food, energy, natural resources, and persons adequately educated to face and resolve the issues at hand.

What are those things that signal global interdependency? Four points can be stated to illustrate what is meant by global interdependence (Byrnes, 1978).

1. Our nation can no longer be isolated socially, culturally, economically, or politically from the rest of the world. For example, we depend on the developing countries for 45% of our oil, 85% of our bauxite, 93% of the zinc ore, and 36% of our iron ore (Reston, 1978).
2. Developing countries have a direct influence on what happens to our agricultural jobs, markets, and prices. One of every four American farm jobs and one of every eight manufacturing jobs depends on the sale of American goods overseas.
3. We can communicate instantly via satellite from any point of the globe, yet we are still seeking better ways to listen to, understand, and develop effective communication with millions of people living in rural areas. We have the hardware for instant international response and retaliation, but we have yet to realize our potential in developing the patience and skills for productive, peaceful communication and negotiation.
4. Our individual responsibilities as private citizens are greater. These include the responsibilities of awareness, information, understanding, concern, and appropriate action. As President Kennedy said in his inaugural address, "If a free society cannot help the many who are poor, it cannot save the few who are rich."

## Agricultural Development

U.S. agricultural educators are most familiar with the second of the three eras of agricultural development (Wortman, 1976) — one based on science and supported by educational institutions, industry, and public agencies. However, world conditions of poverty and food shortages are forcing the developing countries into the third era with necessity to accelerate production at rates even greater than those of the developed countries. This need is being affected by limited resources of water, land, and favorable climate — while most of the farmers still live and work at the speed and in the style of the first era of agricultural development.

## Economic Development

Still another factor affecting our relationship of global interdependence is the level of economic development in the developing world (Fruehling, 1981). Countries in the most advanced level, such as South Korea and Taiwan, have invested heavily in vocational education at various levels. Brazil, the Philippines, and others of the second category have extensive public school systems but the increase in jobs has not kept pace with the growth of the labor force.

The poorer countries include a third group of Latin American and African nations whose vast majority of people have little or no formal education. The fourth category countries have underdeveloped economics and minimal efforts have been made in vocational training. Educational efforts for these last two groups of countries have been small and rural. Typical would be small scale agricultural training programs through extension services and farmer training centers with the inclusion of community development, literacy, and health care.



## Changing People

Some call it education, others call it extension. Sometimes it is communications, or non-formal education, or even community development. The circumstances or settings may vary in detail from one country to another, but all are essentially dealing with the same objective and purpose — changing people.

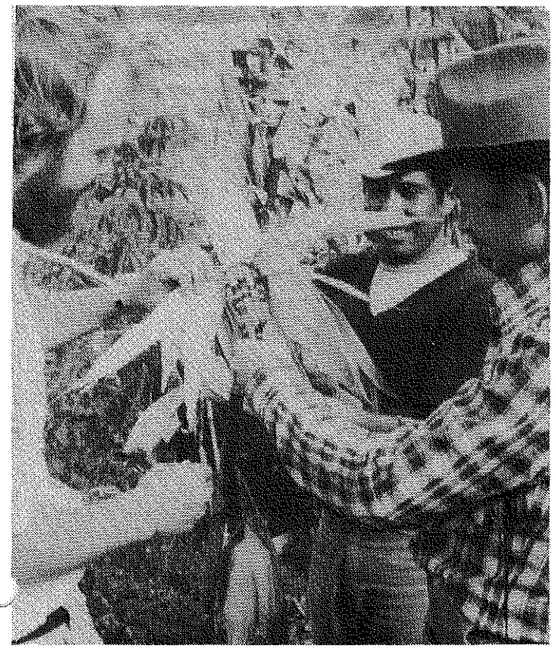
*Technology vs. Humanistic.* The traditional argument deals with tipping the scales in favor of knowing technical information vs. knowing how to work with people. Certainly having one does not guarantee the other. Yes, you must have a "message to communicate" or a "lesson to teach." However, having the message or lesson does not guarantee that you will be successful in "communicating" it, or "extending" it, or having your student (client, audience, or farmer) "learn" or even understand. The situation soon ends up as "which came first, the chicken or the egg?" Regardless of your answer, it takes a sensitive balance of the two elements to be a truly successful educator, communicator, extension worker, or community development worker (or should it be "change agent?"). This is particularly true in international work.

*The Same Purpose.* No matter what the position is called, most of the circumstances or details are identical. The people you work with in international education in agriculture have the same qualities: they are reluctant to take risks and are cautious about new ideas; they use the same senses and process of perception and association; and they range from energetic, inexperienced youth to the steady, experienced aged.

Educators (communicators, extension workers . . .) all use the same basic tools: instructional strategies, including a variety of group dynamics techniques; audio-visual media and aids, such as chalkboard and projection equipment; and individual and group leadership and training techniques.

The setting may differ but the purpose is the same. For example, the teacher is usually found in the classroom, the communicator works through the media, and the extensionist functions in informal situations in the community. Each is working to change people as observed by their change in behavior — whether it be by trying a new seed variety, serving on a community committee, learning to read and write, or practicing soil conservation.

Since our relationship to the people with whom we are working is identical — changed behavior — the "game" is the same, no matter what the name.



**Demonstrating that international education in agriculture is a two-way street, a young U.S. advisor observes native corn.**

## Using Agency Relationships

There are many agencies involved in international education in agriculture. It is important to note briefly both the agencies involved and the relationship you and the agency should have with the people with whom you are working.

*Who Is Involved?* One of the agencies best known to Americans is the U.S. Agency for International Development (AID). The focus of AID programs has changed in recent years to comply with the 1974 congressional mandate that AID programs in less developed countries focus on the "poorest of the poor." Since most of the less developed countries in the third and fourth categories of economic development (Fruehling, 1981) are agricultural, programs have been geared to helping subsistance farmers.

Other programs commonly thought of as providing technical assistance and working in international education in agriculture, include: United Nations Food and Agriculture Organization (FAO), International Labor Organization (ILO), United Nations Education, Scientific, and Cultural Organization (UNESCO), and Peace Corps (note: see the May 1981 issue of Voc-Ed for a listing of opportunities abroad in vocational education).

There are also many international financial organizations providing millions of dollars for programs of education in agriculture such as the World Bank, the Asian Development Bank, the African Development Bank, the Saudi Development Fund, the Inter-American Development Bank, and the United Nations Development Program. To these many organizations must be added the foundations such as the Ford Foundation, the W.K. Kellogg Foundation, and the Rockefeller Foundation.

*Relationship to the People.* Agencies and their programs in agricultural education must relate to and consider the problems of the people. Some common problems of education are (Reinhart, 1981):

— There is constant pressure to expand educational enrollment since modern jobs, often allocated on the basis of formal education credentials, tend to provide higher incomes than traditional employment.

— Wages for many jobs are based on level of credentials held rather than on relevance to job requirements or individual proficiency.

*(Continued on Page 12)*

## Relationships Between Vo-Ag And International Education

*(Continued from Page 11)*

— The upward push for educational credentials leads to more theory and less practicality.

— School enrollments in a developing country increase faster than jobs in the modern sector and increase the number of the educated unemployed at increasingly higher levels of education.

### Can't Transplant America

American educators find that you can't just transplant traditional American programs or simply apply our educational norms to situations in other countries. Many agricultural educators even confuse the lack of formal education with the level of intelligence. Educational programs must fit the country and its people. The agricultural technology which is successful and readily adopted is that which is being generated in local environments (Hildebrand, 1977). Not only the agricultural technology, but the educational programs, must meet the three important criteria of being biologically adapted, economically viable, and socially acceptable (Byrnes, 1978). If programs don't meet these criteria then agricultural educators can be criticized as being "brainwashed" in the sense of the following statement of Shridath S. Ramphal, former Minister of Guyana, cited in THE NEW YORK TIMES, April 10, 1979:

> For too long we have been brainwashed into believing that the best education, the best technology, the best services, the best intellects, the best everything you can think of, come from the so-called developed world. "All that is rural is bad. All that is urban is better. All that is foreign is best."

There are many relationships between agricultural education and international education in agriculture. The basic relationship stems from the growing global interdependence that affects our country. There is also the relationship with other professionals having the same basic objective. The game is the same, no matter what the name — all are working to help people help themselves by changing behavior. Finally, no matter what agency is involved, there is the essential relationship that programs be biologically adapted, economically viable, and socially acceptable.

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**THEMES**
**The Agricultural Education Magazine**
**1982**

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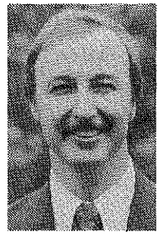
THEME

# Relationships of Departments of Agricultural Education and Colleges of Agriculture

Departments of agricultural education should and must develop strong relationships with all programs in colleges of agriculture to assure viable pre-service and in-service teacher training programs. Such relationships cannot help but spawn long term benefits for both the colleges of agriculture and departments of agricultural education. The need for close working relationships between these two areas has a conceptual basis dating to the early history of teacher education in agriculture which continues today.




BY JAMES A. KNIGHT AND H. DEAN SUTPHIN

*(Editor's Note: Both authors are at The Ohio State University, Columbus, Ohio 43210. Dr. Knight is Assistant Professor in the Department of Agricultural Education and Mr. Sutphin is Administrative Assistant in the College of Agriculture.)*


### Historical Basis

Historically, teacher education programs in agriculture were administered within colleges of agriculture. Most programs grew out of the mandate of the Smith-Hughes Act of 1917 to prepare individuals to teach vocational agriculture in rural high schools. According to Bender (1977) early programs of vocational agriculture were for the purpose of developing interest and competency in farming. Farm boys were taught basic skills and improvement practices in the production of crops, livestock, agricultural mechanics, and farm management. What better place is there to develop technical competencies needed for secondary teaching than in the college of agriculture?

Dependent upon college of agriculture faculty to develop technical competencies, departments of agricultural education faculty could devote their time to the pedagogical skill development and developing skills needed to operationalize vocational agriculture programs. Components of vocational agriculture including class and laboratory study, occupational experience, and the Future Farmers of America were intact by 1928. Teachers were taught appropriate strategies needed to effectively and efficiently use these components to teach technical skills and develop leaders in the agricultural industry.

Secondary students, young farmers, and adults were enrolled in vocational agriculture programs. At this point in the early history of agricultural education, a strong partnership between the colleges of agriculture and the departments of agricultural education appeared to be one of necessity to effectively train future teachers. Has this situation changed today?

### Present Day Linkage

Passage of the Vocational Education Act of 1963 and subsequent amendments in 1968 expanded content areas of vocational agriculture to include more than production agriculture. Agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, and natural resources are some of the content areas of vocational agriculture designated by the federal government. Beyond these, several states have adopted special programs in small animal care, environmental protection, horse training, and other areas.

A rapidly expanding agricultural industry is developing new technologies every day. Correspondingly, vocational agriculture teachers must acquire an ever-increasing number of skills and competencies.

One must assume that the college of agriculture is the most appropriate entity within the university to provide technical skills needed by teachers. Obviously, the extent and scope of technical skills needed to teach vocational agriculture are greater today than ever before. Departments of agricultural education have a responsibility for coordinating course development with colleges of agriculture to assure that appropriate instruction applicable to the needs of vocational agricultural teachers is available.

Today, as in former years, professional needs in the areas of teaching competence and skills are, of course, the responsibility of the agricultural education department. Development of technical competence, however, rests upon the shoulders of colleges of agriculture. When we have teachers who are not being adequately prepared in the technical areas, the concern is a problem for the college of agriculture.

### Pre-Service Teacher Training Programs

Generally, 45-60 semester hours of the undergraduate agricultural education curriculum are in technical agriculture. An ad hoc committee was appointed by the Agricultural Education Division of the American Vocational

*(Continued on Page 14)*

## Relationships of Departments of Agriculture Education and Colleges of Agriculture

*(Continued from Page 13)*

Association to identify the role of a vocational agriculture instructor. The committee recognized that teachers must now serve an expanded clientele which includes secondary, postsecondary, and adult education.

Colleges of agriculture and departments of agricultural education now more than ever must share responsibility for the success or failure of agriculture teachers. Serving an expanded clientele and teaching a diversity of content areas demand a greater degree of care in developing programs for agricultural education students. This thorough planning can provide graduates with opportunities to develop expertise in areas in which they are truly interested.

At a number of universities around the country, it is now possible to graduate from a college of agriculture with dual majors in one of the technical departments and agricultural education. This again would appear to enhance the visibility of the importance of the technical instruction in the development of competent teachers of vocational agriculture.

### Inservice Needs of Teachers

A number of universities around the country are now pursuing the development of technical workshops, off-campus courses, both credit and non-credit, for teachers of vocational agriculture. In Ohio a two-day Technical Update taught primarily by College of Agriculture faculty has been offered to agriculture teachers the past two years. Primary emphasis is on new technologies in the agriculture industry related to the various teaching areas. This program has been widely accepted by agriculture teachers and college of agriculture faculty who do the teaching.

Similarly in Virginia and other states, workshops and technical update types of activities are coordinated with the college of agriculture and held in conjunction with the vocational agriculture teachers conference. The idea is that teachers need to update their technical competence. College of agriculture faculty members are most competent to meet these needs. The department of agricultural education can facilitate development and coordinate the most appropriate type of inservice education.

### Recruitment Efforts

In a time when student numbers are generally declining around the country, competition for those students at the postsecondary level is increasing. Based upon work at Ohio State University, it would appear that where the department of agricultural education is administered in the college of agriculture, the department has a responsibility first of all to recruit students for the university, secondly to the college of agriculture, and thirdly to the department.

Combined recruitment efforts mutually beneficial to the college of agriculture and the department of agricultural education can be orchestrated in most if not all cases. Joint recruitment brochures, slide presentations, and other techniques could and should increase enrollments. This is particularly true when agricultural education is administered in the college of agriculture. Many colleges are coming to realize the benefit of developing a good relationship with the vocational agriculture teachers' association and vocational agriculture teachers in general, because of the power they have to influence students to pursue higher education at the university level. They know that vocational agriculture teachers can carry a great deal of influence with potential enrollees in colleges of agriculture.

### Non-Teaching Options

We need to understand that agricultural education can provide students with skills necessary for employment in occupations other than teaching vocational agriculture. Extension, areas of agribusiness, international areas of agriculture, and other job opportunities are available to agricultural education graduates. Pedagogical skills combined with an expertise in technical agriculture open many doors in the employment arena. With this understanding, it should become more clear why departments of agricultural education and colleges of agriculture should retain an even closer relationship than might have been presumed or believed in the beginning.

### Academic and Career Counseling

Teacher educators in departments of agricultural education need to keep career and academic counselors in colleges of agriculture informed about developments in agricultural education. This is particularly true where agricultural education programs are administered outside the college of agriculture. Some departments may find an annual lunch hour orientation program for counselors in the college of agriculture and other colleges, such as the college of education, an expedient use of time and money. In turn, counselors will be better informed about job opportunities, and the agricultural education program in general.

Recruitment of potential enrollees can be accrued from a valid understanding of agricultural education. Conversely, agricultural education faculty should be well apprised of scholarship programs, honors programs, student organizations, and other activities sponsored by the college of agriculture that are available to agricultural education students. Efforts must be initiated by agricultural education departments to insure the information is shared. Faculty have a responsibility to insure all possible opportunities are available to agricultural education students in the areas of career development and the pursuit of academic excellence.

### Good Relationships Yield Benefits

Agricultural education departments must develop close working relationships with the college of agriculture. Benefits derived from such a relationship will have a positive impact on agricultural education students, the department of agricultural education, the college of agriculture, and the program of agricultural education in respective states.

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ARTICLE

# Getting on "Trac"

By Dale Perritt

*(Editor's Note: Dr. Perritt is Assistant Professor of Agricultural Education at Stephen F. Austin State University, Nacogdoches, Texas 75962.)*

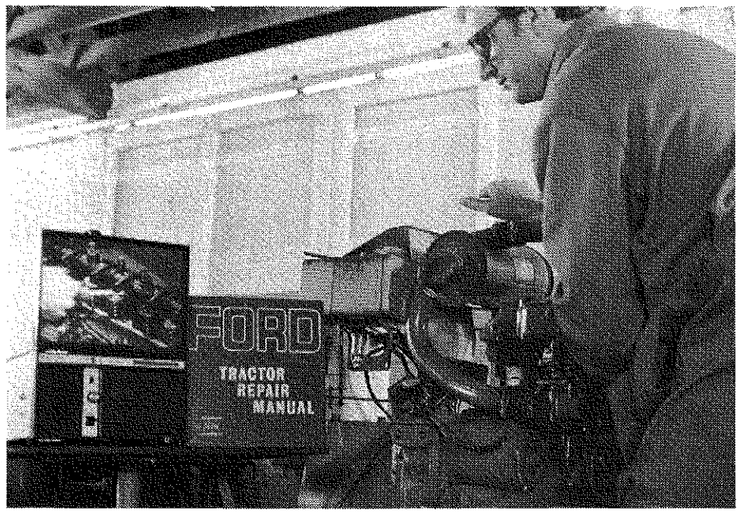
Teaching agricultural tractor service and repair is challenging under ideal situations. When 20 or more students are crowded around one or two tractors or power units, the challenge quickly becomes an impossibility. Some students will not be able to see or hear — much less gain "hands-on experience." Classes filled to capacity with students of differing mechanical aptitude levels require both good planning and adequate technical knowledge to challenge both the fast and slow learner. There may be a teaching tool in the local community that will provide teachers an option for large class management, improve technical instruction, and offer special-need students extra help.

### The Trac-Com System

The Trac-Com System is an audio-filmstrip presentation developed by Ford Tractor Company to assist in training Ford technicians and mechanics in the disassembly, inspection, repair, and reassembly of Ford tractors. Instructional units are available for the major systems found on the agricultural tractor. Although these audio-filmstrips are designed for the Ford tractor, much of the material is generic in nature and may be related to other makes of tractors.

### Where Is It?

If there is a Ford tractor dealership in the local area, chances are there is a Trac-Com System available. Of course, the local teacher must contact the dealer, make the dealer aware of the need, and then work out an agreement for borrowing the system. In a recent study in Mississippi, seven Trac-Com Systems were borrowed from Ford tractor dealers. All of these dealers were most cooperative in loaning the equipment. The dealers ordinarily made only two requests: (1) take good care of the equipment and (2) return it at the agreed time. Remember, "ask and ye shall receive."




**The author is shown testing the Ford Trac-Com System in an experiment to determine whether students learn more if taught using the system or by a teacher.**

### How to Use It

The Trac-Com System provides a "Leader's Guide" booklet with each audio-filmstrip presentation. These guides provide suggestions for setting up and using the sytem. Teachers may also develop worksheets which will aid the students in retention of concepts presented in the filmstrip.

The research previously mentioned indicated that the Trac-Com System used with a small group, such as four or five students, was very effective in teaching value train-cylinder head service and repair. Student test scores collected three weeks following the instruction were much better than scores of students taugher the same subject by a more traditional lecture-demonstration technique.

The Trac-Com System may also be used in the laboratory as a step-by-step guide for disassembly, inspection, repair, and reassembly of various tractor components. This technique is especially effective when used with a Ford power train unit found in many vocational agriculture departments. The Trac-Com is not intended to replace the repair manual, but to complement it by visualizing mechanical processes.

Finally, the Trac-Com System may be used to help students who have missed classes or who need extra help with a particular tractor system.

Educational research has shown an effective technique to be that of having small groups go over complex tasks. The Trac-Com System can provide a delivery system which will improve student learning potential while providing more flexibility for the instructor.

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Perritt, Dale. "Effects of Two Instructional Techniques Used With the Ford Power Train Simulator on the Performance of Students." Unpublished Dissertation, Mississippi State University, 1981.

ARTICLE

# A Horticulture Program That "Puts It All Together"

A meaningful horticulture program must combine classroom/laboratory instruction, summer experiences, and industry contact. These have been achieved at the Montgomery County Joint Vocational School in Clayton, Ohio. This article describes the horticulture program as it is carried out in this Southwest Ohio community.

By Richard Gustafson, Erik Munson, Dennis Parrish, & Harold Stockslager
*(Editor's Note: The authors are horticulture instructors at Montgomery County Joint Vocational School, Clayton, Ohio 45315.)*

## A Diverse Program

The four horticulture instructors teach nearly 100 students who are transported in from five counties near Dayton. The program begins the junior year and provides a variety of learning experiences.

Junior students entering the Montgomery County Joint Vocational School are randomly divided into two groups. One group spends the first semester studying landscaping and turf management. Laboratory experiences include design and implementation of a residential landscape plan, total maintenance of a 6,000 square foot golf green at the school, and home lawn establishment and renovation.

The first semester for the other group involves instruction in floral design, retail flower shop management, and greenhouse management. Students establish and maintain greenhouse crops and then retail them through the school flower shop. A variety of flower arrangements for various occasions is also offered.

At the end of the first semester, the insructors exchange classes and repeat the instruction with the second group.

The diverse junior curriculum allows the students to make more informed decisions on which area to specialize in the senior year. Should career goals change slightly during or after the senior year, the student has enough background to function in another horticultural occupation.

In the senior year, landscape specialization students complete several landscapes in the community. The class has a bus available at all times to reach the job site where they interview the potential customer, sell their plan, and complete installation. Back at the school they draw the plan and figure cost estimates. In the spring the class installs one of eight gardens in the local garden show, working side-by-side with leading local landscapers. Valuable employer contacts are often made here.

The senior floriculture specialization is geared both to the retail trade and the production of cut flowers in the greenhouse. Students are taught operational skills, salesmanship, displaying, and promotion. Cut flowers are grown and then marketed through the school flower shop.

## Summer Program

Between the junior and senior years, students may elect to participate in the summer program for high school credit during July and August. Emphasis is on those experiences not available at other times of the year. For example, 1,200 square feet of natural-season bench mums are started for the senior floriculture class.

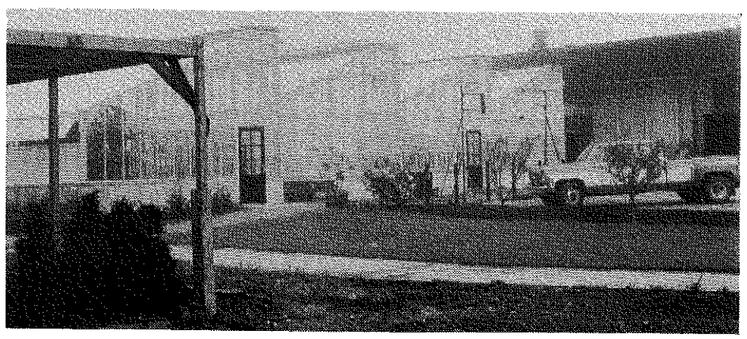
Another benefit of the summer program is in the area of student placement. Those who participate may be eligible for half-day work experience in early November rather than late January and leave school full-time at the end of March. This puts them on the job for several major florist's holidays and in time for the spring garden center season.

The summer students also enable us to maintain year-round, an 8,500 square feet of greenhouse and a 5,000 square foot lathhouse of trees, shrubs, and groundcovers.

## Industry Contact

Nearly all of the horticulture students are placed for supervised occupational experience. Students with good attendance and high grade averages may be eligible for half-day work experiences beginning the first day of the second semester of the senior year. Later placement is available to those who have not maintained highest grades and attendance. These jobs frequently lead to post-high school employment and provide some very practical learning experiences.

This fine placement record is due in large part to association with industry organizations and trade shows. Students attend the Indianapolis Trade Fair for florists and growers, the Garden Industries of America Trade Show, the Ohio Nurseryman's Association Convention, and the product preview shows of some local distributors. The instructors are members of these and other industry organizations, an association which pays dividends in student placement.



**The greenhouse facilities include 8,500 square feet of floor area.**

Graduates of the horticulture program of the Montgomery County Joint Vocational School are supportive of the program. For example, two graduates are qualified substitute teachers when needed and one teaches an adult evening class. Others occasionally return as resource persons in the horticulture classes.

## Putting It All Together

Such aspects as a diverse curriculum, a viable summer program, and close industry contact have all contributed to the success of the horticulture program at the Montgomery County Joint Vocational School. We feel that we have been fortunate in "putting it all together" to meet student and employer needs.

HORTICULTURE PROGRAM
Montgomery County Joint Vocational School

*Junior Year*

| | First Semester | Second Semester |
|---|---|---|
| Group A | Landscaping and turf management | Floral design, flower shop management, and greenhouse management |
| Group B | Floral design, flower shop management, and greenhouse management | Landscaping and turf management |

*Summer*

Laboratory and Placement Experiences

*Senior Year*

| Class | First Semester | Second Semester |
|---|---|---|
| Landscape specialization (involves preparing plans and completing installations) | In school facilities and using community locations | Placement in landscaping businesses |
| Floriculture specialization (involves production of cut flowers, retail operations and promotion) | In school laboratories, including operation of a school flower shop. | Placement in greenhouse and floral businesses |



ARTICLE

# Weedhoppers Proving Useful to Farmers

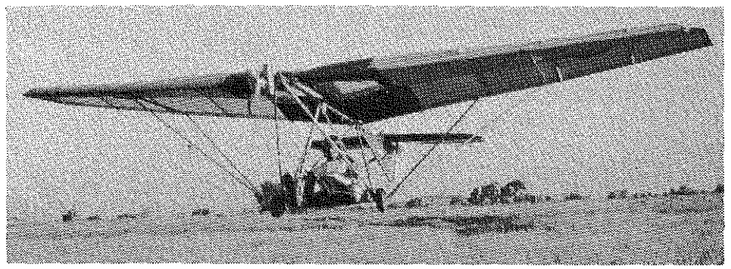
Weedhoppers, ultralight aircraft originally designed for sport pilots, are being used for a new, practical purpose on America's farms. With their exceptional maneuverability and slow cruise speeds of 30-40 mph, they are replacing the pick-up truck and helicopter for surveillance work over range land, orchards, groves, grain fields, vegetable fields and along fence lines.

By David Gustafson
*(Editor's Note: Mr. Gustafson is with Communication Resources, Inc., 11440 W. Woods Road, Franklin, Wisconsin 53132.)*

Tom Gillette, a rancher and irrigation farmer in Declo, Idaho, provides a typical example of someone who bought a Weedhopper for fun flying and found other uses for it: "We have eighteen watering pivots on our farm. The Weedhopper is ideal to climb into the first thing in the morning for some slow flying over our fields so we can check the pivots to see if they are stuck, broker, or have plugged birdies. An aerial inspection requires about one-fourth the time it used to take in a pick-up and there's a whole lot less wear and tear on man and machine." Gillette, who uses a strip of field behind his barn for a runway, overflies his cattle in the winter to check on feed and fences. The Weedhopper will cover areas that become inaccessible after blizzards or heavy rains.

"Weedhoppers can be flown without a pilot's license," says John Chotia, designer of the plane and president of the Weedhopper company. "The Federal Aviation Administration has exempted Weedhoppers from all licensing requirements which makes ultralight flying available to everyone."

Weedhoppers are sold as a complete kit — everything is included but the gas — for around $3,395. The aircraft can be assembled with simple hand tools in 50 hours and can be flown with about the same skill and judgement it takes to drive a tractor or motorcycle. Maintenance requirements normally amount to little more than a careful preflight inspection every time the plane is flown and operating costs are under $1.50 per hour.



# Books To Be Reviewed

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KNOTT'S HANDBOOK FOR VEGETABLE GROWERS, 2nd edition, by Oscar A. Lorenz and Donald N. Maynard

SOIL GEOGRAPHY AND LAND USE, by Henry D. Foth and John W. Schafer

SOILS AND OTHER GROWTH MEDIA, by A.W. Flegmann and Raymond A.T. George

PRINCIPLES AND PRACTICES OF RICE PRODUCTION, by Surajit K. DeDatta

SOIL PROCESSES, by Brian Knapp

INTRODUCTION TO AGRIBUSINESS, by N. Omri Rawlins

PLANT SCIENCE, AN INTRODUCTION TO WORLD CROPS, 3rd edition, by Jules Janick, Robert W. Schery, Frank W. Woods, Vernon W. Ruttan.

ECONOMICS, APPLICATIONS TO AGRICULTURE AND AGRIBUSINESS, 3rd edition, by Ewell P. Roy, Floyd L. Corty, and Gene D. Sullivan

MYTHOLOGY IN AMERICAN EDUCATION, by Harold H. Punke

PRODUCING FARM CROPS, 3rd edition, by Lester V. Boone, A. Chester Richer, and Harold K. Wilson

COMMERCIAL CATFISH FARMING, 2nd edition, by Jasper S. Lee

FOUNDATIONS OF FOOD SCIENCE, by John Hawthorn

REPRODUCTION IN THE PIG, by Paul Hughes and Mike Varley

FUNDAMENTALS OF PLANT GENETICS AND BREEDING, by James R. Welsh

GREENHOUSE OPERATION AND MANAGEMENT, 2nd edition, by Paul V. Nelson

FLORAL DESIGN AND ARRANGEMENT, by Gary L. McDaniel

ELEMENTARY FORESTRY, by B. McManus Collins and Fred M. White

THE EARTH IS SORE, NATIVE AMERICANS ON NATURE, adapted and illustrated by Aline Amon

CATTLE MANAGEMENT, by Cheryl May

PLANT BREEDING AND GENTICS IN HORTICULTURE, by C. North

YOUR FARM ESTATE, by James N. Wilp son, C.P.A.

AGDEX, A SYSTEM FOR CLASSIFYING, INDEXING, AND FILING AGRICULTURAL PUBLICATIONS, by Howard L. Miller and Ralph J. Woodin

SOIL AND WATER CONSERVATION FOR PRODUCTIVITY AND ENVIRONMENTAL PROTECTION, by Frederick R. Troeh, J. Arthur Hobbs, and Roy L. Donahue

EXPLORING AGRIBUSINESS, 3rd edition, by Ewell Paul Roy

TURFGRASS MANAGEMENT, by A.J. Turgeon

APPROVED PRACTICES IN SWINE PRODUCTION, by James K. Baker and Elwood D. Juergenson

THE COMMERCIAL GREENHOUSE, by James W. Boodley

PROFITABLE GARDEN CENTER MANAGEMENT, by Louis Berninger

PRINCIPLES OF DAIRY SCIENCE, by G.H. Schmidt and L.D. Van Vleck

BREEDING FIELD CROPS, 2nd edition, by John Milton Poehlman

EDWIN G. NOURSE, ECONOMIST FOR THE PEOPLE, by Joseph G. Knapp

GROWTH IN ANIMALS, by T.L.J. Lawrence

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# Eye Protection Is A Must in Agriculture

BY JANET F. WEINSTEIN
*(Editor's Note: Ms. Weinstein is with the National Society to Prevent Blindness, 79 Madison Avenue, New York, New York 10016.)*

When working with fertilizers, pesticides and any farm chemicals, you may suffer a severe eye injury — and possible blindness — unless you wear appropriate eye protection, warns the National Society to Prevent Blindness.

"More than half of all agricultural eye injuries over the past few years involved chemicals, according to reports from hospital emergency rooms," said the Society's executive director, Virginia S. Boyce.

"Ninety percent of eye injuries could be prevented with the use of proper protective eyewear and safety precautions," Mrs. Boyce stressed.

"Whenever you handle fertilizers, pesticides, chemical cleaners and solvents, wear goggles fitting snugly around the eyes, with hooded vents to keep out liquids," Mrs. Boyce advised. A face shield placed over the goggles provides maximum protection from these caustic, toxic and often flammable substances.

The Society also offers these tips:

- Study the product's label for correct use and observe listed precautions.
- Understand thoroughly how to operate all equipment prior to use.
- Always store pesticides in original containers, keeping them tightly closed.
- Carry at least five gallons of plain water on tractors and other farm equipment.

Should any chemicals reach the eyes, flush them with water instantly, holding the eyelids open, and continue for at least 15 minutes. Then seek immediate medical attention.

"Delaying treatment increases the likelihood of vision loss," Mrs. Boyce cautioned. "Never put anything but water in the eyes; salves or ointments can complicate first aid and later medical treatment."

Highly concentrated liquid (and gaseous) fertilizers can inflict serious injuries. Of special concern is anhydrous ammonia, a gas pressurized to liquid state and used to boost crop production. One of the most damaging substances to the eye, anhydrous ammonie begins destroying cells and tissues within seconds of contact. In addition to carrying at least 5 gallons of water on the tractor, nurse tank and applicator, all anhydrous ammonia users should keep a plastic squeeze bottle of water in a shirt pocket to flush the eyes immediately, in case of contact with anhydrous.

Many eye injuries occur when pressurized anhydrous ammonia is transferred from bulk containers to smaller tanks, a process repeated several times.

"Check all hose fittings and connections in equipment every day," Mrs. Boyce said. "Just one minor defect — a weak point in a hose, faulty valve, a worn fitting — and eyesight may be threatened."

Anhydrous ammonia and its potentially blinding effects are vividly depicted in a film called "For the Rest of Your Life." A dramatization of an accident with anhydrous illustrates the dangers, the safest handling procedures and the proper eye and face protection equipment. The film is available on loan from the National Society to Prevent Blindness, 79 Madison Avenue, New York, New York 10016.

The National Society, established in 1908, is the oldest voluntary health agency nationally engaged in preventing blindness through community service programs, public and professional education and research.



MODERN LIVESTOCK AND POULTRY PRODUCTION, by James R. Gillespie, Albany, New York: Delmar Publishers, Inc., 1980, 662 pp. $15.00.

This book is divided into eight sections: the livestock industry, feeding and nutrition, animal breeding, beef cattle, swine, sheep and goats, horses, and poultry. It also contains a glossary and appendices which include nutrient requirements for livestock, composition of common feeds, and conversion factors. The format of the text is well organized. The eight sections are futher divided into a total of 36 units.

Section number one, the livestock industry, furnishes an overview of the livestock industry featuring developmental and historic facts, career opportunities, safety information, and environmental impact concepts. Each of the subsequent sections deals with the topics that are related to their headings.

Each unit begins with the stating of unit objectives and concludes with student learning activities and review questions. The glossary further aids the reader by presenting definitions and descriptions in a brief, to the point, manner. Pictures, charts, graphs, and drawings that would be useful in teaching an introductory livestock class are abundant throughout the book.

The author of the text, James R. Gillespie, has had considerable training in the field of livestock production as well as agricultural education. He holds bachelor and masters degrees in agricultural education and is an Educational Specialist in school administration. He has taught high school and adult vocational agricultural classes. In addition to his agricultural education experience, he has been self employed in production agriculture.

The text is designed in such a manner that it could be used by secondary and postsecondary students who were taking an introductory course in across-the-board livestock production.

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Thomas R. Stitt
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ARTICLE

# A System for SOE Visits

By Jerry Crownover
*(Editor's Note: Mr. Crownover is Assistant Professor at Southwest Missouri State University, Springfield, Missouri 65602. He previously taught vocational agriculture in Carthage, Missouri.)*

The key to having effective supervised occupational experience as part of your vocational agriculture program is to develop a workable system and stick to it. The system described in this article worked for me. You may not agree with it, and there is certainly no reason to believe your plan wouldn't work as effectively. The most important thing to remember is that a predesigned system is essential.

A first step should be to visit the office of the high school principal or vocational director (if you are part of a vocational school). Explain the importance of SOE as part of your comprehensive program. Since it is part of your instructional responsibilities, at least one class period of the day should be provided for your supervisory visits, in addition to the one-hour preparation period generally provided. Once this important step is accomplished, set up a schedule for each month's (or each week's) SOE visits and give your administrators a copy. Keeping administrators informed of SOE efforts will not only assure them of your dedication to your program, but also win support of your SOE activities. Give every student to be visited a schedule or write it on the chalkboard in advance so they are aware of and can prepare for your visit.

Now we're ready for the visit itself. My policy was to visit only one student per afternoon so that he or she might have as much of my time and attention as possible. However, if more students are visited in an afternoon, more programs can be seen with less mileage expense. With today's fuel and funding problems in many school districts, this approach may be advisable. However, it is important to devote as much individual attention as needed to each individual student during the visit.

During actual visits, make yourself a mental checklist of items to accomplish that you feel are important to students and to your program. Such a checklist might include:

1. Get to know students as individuals. Talk over any problems they may be having at school.
2. Review any changes students have made in their SOE since your last visit.
3. Discuss progress toward FFA degree advancement and Proficiency Award possibilities. (The SOE visit is an excellent time for spurring motivation and interest in these two important achievement areas.)
4. Look over the records students have kept on their SOE and help solve problems they may be having with them.
5. Make any suggestions you feel appropriate in regard to improvement or expansion of their SOE. The SOE visit represents an excellent opportunity for individualized instruction!
6. Make a point to visit with parents or employers of students about their progress and goals.
7. This point is important: FIND SOMETHING GOOD ABOUT EACH STUDENT'S SOE AND TELL HIM OR HER SO. (Remember that you are probably the only teacher who will ever visit in the home or job environment and that emphasizing something good will improve your relationship with students, parents, and employers.)
8. Take along a camera to take pictures of SOE activities and projects. Project pictures make students feel more important, will help immensely on Proficiency Award Applications, and make a great slide show at the annual parent-member banquet.
9. Keep a written record of your visits. Such a journal does several things, including refreshing your memory before the next visit, letting other teachers know how students are progressing if you are in a multi-teacher department, and providing ideas for SOE involvement in classroom activities.

The SOE visit is an essential part of a good comprehensive vo-ag program. So many things can be done during an effective supervisory visit, if we will just develop a workable "system." So, get out and visit! It can bring about a big change in your students' attitudes and achievements. It can also make you feel better inside and proud to be a vocational agriculture instructor.

## NATIONAL AGRICULTURAL EDUCATION RESEARCH MEETING

The 1981 National Agricultural Education Research Meeting will be held Friday, December 4, at the Atlantla Hilton (AVA Convention Headquarters) in Atlanta, Georgia. Registration will begin at 8 a.m.; the first general session will take place at 8:30 a.m. in the Clayton Room.

Six concurrent sessions will be held during the day, at which 18 research papers will be presented. Themes include: employment in agribusiness, adult education/systems evaluation, special students/recruitment, FFA/SOEP, teacher education and curriculum planning. A presentation on selecting statistical procedures, and a panel discussion on priorities for research will conclude the meeting.

The meeting is a function of the Research Committee of the Agricultural Education Division and is chaired by Maynard Iverson of North Carolina State University. All agricultural educators attending the AVA Convention are invited to the 1981 NAERM. Registrants will each receive the Proceedings containing a copy of each presentation. Registration will be approximately $10.



ARTICLE

# Using Faculty Duties in Public Relations

By Larry Gwaltney and Jim Legacy
*(Editor's Note: Mr. Gwaltney is Vocational Agriculture Teacher, Farina High School, Farina, Illinois 62838. Dr. Legacy is Associate Professor, Southern Illinois University, Carbondale, Illinois 62901.)*

Being a successful teacher in a public secondary school system involves more than classroom activities. The superintendent and principal will probably demand several things from a teacher, and the vocational agriculture teacher is not excluded from these responsibilities. The teacher may be asked to serve as sponsor of a class, be the advisor of a youth club, sell tickets at athletic events, attend in-service training program, plan and attend a faculty party, work in the cafeteria fifteen minutes each day as lunch room supervisor, serve on a school-community advisory committee, be a chaperone at the senior prom, serve on a faculty-board salary committee, ride the bus and be a chaperone when the basketball or football team is playing award from home, and perhaps do a hundred other things. These responsibilities are in addition to the normal daily routine of classroom activities, field trips, lab supervision, meetings with other faculty members, conferences with students, and visits at the home with students and parents.

## The Positive Approach

Some teachers approach "extra" duties with a negative attitude. They consider "extra" duties as burdens one must endure to have a teaching job. Simply stated, such duties may be considered a waste of time which make teaching more than a daily job from 8 a.m. to 4 p.m. on Monday through Friday.

Because of these "extra" responsibilities, some teachers have resigned their positions and selected another career. They considered the demands too great.

A teacher can approach these responsibilities with either a negative or positive attitude. If approached in a positive manner, the "irritating problems" become opportunities for developing a teacher's leadership ability and implementing a successful public relations campaign in one's teaching field or department.

A successful teacher is a leader. But leaders are not born; they are developed. Leadership is a learned behavior which an individual can master and improve by study and application. One definition of leadership is: the ability to cause others to take initiative, actions, responsibility which facilitates the accomplishment of group goals, and at the same time, make the individuals in the group feel happy about being involved in the process.

Leaders serve! Probably, this is the key to developing a true leader. Leadership is a group phenomenon. By listening, learning, participating, and contributing, one leads. A teacher is in the midst of the phenomenon of leadership every single day. Why not take advantage of the many opportunities and develop ability rather than consider such opportunities irritating problems?

Seed, if not planted, fail to produce a harvest. Leadership potential, not developed, fails to accomplish anything worthwhile. It is impossible to develop personal leadership ability without accepting responsibilities. School systems and our nation are in need of leaders at every level. Why not take the positive approach toward the tasks at hand? Faculty duties provide an opportunity to develop leadership ability.

## Synonyms: Teacher and Leader

A teacher/leader, which should be a synonymous title, can enhance success if effective public relations methods and techniques are used. Faculty duties provide excellent opportunities for applying public relations concepts.

Selling tickets at a ball game may be a unique opportunity to meet local businessmen, bankers, farmers, or former students.

Serving on the school-community advisory committee may allow one to make contacts with community leaders, be an opportunity for scheduling class field trips to various companies and farms, or be a time to discuss student employment opportunities.

Working in the cafeteria a few minutes at noon as lunch supervisor could be a unique opportunity to talk informally with students about the school, the agriculture program, or personal problems students may have.

Being an active FFA advisor is an opportunity to demonstrate leadership qualities to others.

## Presenting an Image

Every teacher presents some "image" to the public, students, other teachers, board members, parents, and community leaders. The successful teacher will use public relations methods either directly or indirectly to present a positive image.

The faculty duties a teacher encounters will vary with each school. But regardless of the number, these responsibilities, if approached in a positive manner, become opportunities to develop personal leadership ability and implement an effective public relations program for the teacher and the vocational agriculture program. Actually, there is no other feasible alternative. If one is negative, bitter, angry, and disgusted with these responsibilities, such attitudes will be transmitted to others. Teaching becomes a job or profession to endure rather then enjoy.

When the superintendent says, "Vo-ag instructors do this . . ., or that . . ., or something else . . .," Remember! It's an opportunity. A leader serves others.

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ARTICLE

# The Missing Link

By
Texton R. Miller
*(Editor's Note: Dr. Miller is Professor of Agricultural Education, North Carolina State University, Raleigh, North Carolina 27650.)*

We in agricultural education have failed miserably in propagating adequate supervised occupational experience (SOE) programs for all students of vocational agriculture. We have lacked the visionary writings in articles, books, materials, and teaching units to promote the broad-based concept needed to provide SOE opportunities for all of our students. The philosophy of Hammonds, Deyoe, Binkley, Phipps, and Scarborough has been passed over very lightly by the vast majority of teachers, teacher educators, supervisors, consultants, occupational directors, and other administrators.

We have failed to keep up with the times as far as SOE is concerned. The 1963 Vocational Education Amendments specify that a major objective of vocational agriculture is to develop "an understanding of and appreciation for career opportunities in agriculture." For far too many, this means only an academic classroom study of occupations. That's general agriculture; no vocational agriculture.

Vocational agriculture students need to extend their learning with study-visits to persons on the job; to experience the sights, sound, smells, tastes, vibrations, and atmospheres of the occupations. This requires an SOE concept by the teacher that includes an emphasis upon exploratory experiences as a necessary part of the vocational agriculture instruction.

We have changed the names of SOE over the years from home projects to supervised farming programs to supervised practice to SOE; and some would make it supervised agricultural occupational experience. But for far too many, SOE has remained a home project. And, for even more, there is not even this vestige of SOE being developed except with the student leaders.

In contrast to the national leadership given to Future Farmers of America (FFA) programs, materials, contests and awards, little has been developed with an exciting emphasis upon SOE. Yet, we say FFA degree advancement depends upon the supervised occupational experience program. The proficiency awards are said to be based on SOE, or at least a major portion of it. But where are the beautiful handbooks for SOE as those produced for the FFA, one for the advisor and one for the student?

A few years ago, a national committee spent considerable time working on "Records for Supervised Occupational Experience." They also considered a possible student handbook on SOE. The recordbooks survived, but the SOE handbook disappeared.

It is my contention that we have done an injustice to hide SOE under the FFA blanket of awards and contests. Vocational agriculture needs to showcase a concept of SOE that promotes opportunities for each student to carry learning to the doing level in each of the units of instruction in which he or she participates. This is vocational education. This requires a concept of SOE which is not limited to home projects. It will include money making ventures (ownership and/or placements), improvement projects, agricultural competencies, (the "old supplementary practices"), and exploratory experiences (study-visits).

All vocational agriculture instruction should be geared to student development of individualized programs of SOE. Then the FFA will also expand and improve as all students have a comprehensive framework for learning carried to the doing level. There will be more applicants for degree advancement at all levels and more competition for the proficiency and other FFA awards. Even beyond the awards, students will have more and better opportunities to reach the competency level of learning, or as we say so succinctly in the FFA motto: ". . . learning to do . . ."

BOOK REVIEW

New Roots for Agriculture, by Wes Jackson. San Francisco: Friends of the Earth, 1980, 168 pp., $4.95.

Defenders of traditional agricultural methods, who are often opposed to the ideas of "ecologists," might not like this book. It is critical of till farming, the use of chemicals and irrigation, and dependence on fossil fuels. It suggests that sweeping changes must be made in farming methods before we seriously damage the environment.

Wes Jackson, a 45-year-old researcher with a Ph.D. in genetics, says that "truly sustainable" agriculture is not being practiced in the Great Plains today. Jackson is co-director of The Land Institute, a nonprofit research and educational facility at Salina, Kansas, that studies alternatives in agriculture, shelter, energy and waste-management.

The book emphasizes the problems of soil erosion, soil damage caused by chemicals and irrigation salts, and the vulnerability of crops to diseases, pests, and drought, and farmers' dependence on imported oil. Jackson suggests that new crops need to be developed — "herbaceous perennials" that would require little tillage of the soil. He proposes "an agriculture less human-dependent and more self-renewing, based on the principles of nature."

This provocative volume concludes with a description of a Utopian farm of the year 2030, with buffalo-beef hybrid livestock, mixed perennial grain crops, and buildings run with solar and wind energy. Jackson's arguments are directed at persons of various educational levels who are concerned about long-range protection of the environment.

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FFA PAGE

# FFA Membership Trends — What Are The Implications?

By Kevin Maxwell and Elmer Cooper
*(Editor's Note: Mr. Maxwell is Vocational Agriculture Teacher at Crossland Senior High School, Temple Hills, Maryland 20031. Dr. Cooper is Assistant Professor in the Department of Agricultural and Extension Education, University of Maryland, College Park, Maryland 20742.)*

A study is under way at the University of Maryland to look at national FFA membership trends and how they may be influenced by certain factors in local programs and factors controlled by the national FFA. Is the phenomenon of decreasing FFA membership a temporary one in the growth of FFA (there was a slight increase in 1981), or is it to become a new long-term trend? If the latter tends to be true, are there adjustment that can be made in policies and programming that will deter or, hopefully, reverse the dropping membership trend and restore orderly growth in the organization?

A pilot study was conducted at the University of Maryland in 1980 to find answers to some of the questions raised about FFA membership trends and how they may be influenced by factors in the local programs.

This pilot study has become the basis for a national study now in progress. Some of the questions identified by the national FFA staff and authors centered on how FFA membership is being influenced by 1) the shortage of vocational agriculture teachers, 2) chapter size, 3) temporary certification of teachers, 4) increase in membership dues and 5) reduction in the length of teacher contracts. Members of the national FFA staff believe that the above factors, as well as others, may be related to the current national trends in FFA membership.

One surprise in the pilot study was the fact that Maryland FFA membership increased considerably during the first years of national FFA membership decline, and that it peaked after national membership had dropped by 2,627 in 1977-78 and 12,714 in 1978-79. However, after 1978-79 the state membership dropped similar to the new trend indicated by national data.

Do vocational agriculture enrollments and FFA membership coincide? The authors observed that membership in FFA was lagging behind changes in vocational enrollments in the state by approximately one year. Hence, as vo-ag goes so should FFA! This is no earth shaking revelation if FFA is, in fact, integral to vocational agriculture. However, procedures required to identify members, collect dues, clear local membership procedures, and get members registered with the state and national association would likely explain some of the one-year lag.

The fact that a State Association of FFA is composed of many local chapters means that state trends mirror the net gain or loss statewide and is influenced by the gains or losses within the chapters and the addition or deletion of total chapters within the state. The need for long-term studies of membership patterns is apparent if state and national FFA authorities are to react or respond to membership changes.

Other results of the study were:

1. Vocational agriculture programs appear quite stable, although there was apparent shifting of some vo-ag departments from comprehensive high schools to vocational-technical centers across the state.
2. The number of vo-ag departments in Maryland with FFA in the 1978-79 school year was greater than at any previous time as was the percent of programs having FFA chapters (90.32 percent).
3. The percent of students enrolled in vo-ag programs who were FFA members was within one percent of where it was five yeas ago in Maryland.
4. It appears that with falling enrollment and FFA membership, and the increase in the number of chapters, that the size of the individual chapters must be decreasing.

This was a pilot study to identify research methods and develop instruments to obtain data in a study of regional and national FFA membership trends and their relationships to vocational agriculture enrollments, certification status of vocational agriculture teachers, changes in length of teacher contracts (extent of summer employment), number of FFA chapters chartered, level of total FFA dues, and other selected variables. The procedures and instruments so developed have been used to obtain data in the Eastern FFA Region. The regional study will be completed in 1981.

**Reference**

Maxwell, Kevin M. "A Study to Determine the Relationships Between Certain Selected Factors in Vocational Education in Agriculture Programs and FFA Membership Trends." Unpublished Master's thesis, Department of Agricultural and Extension Education, University of Maryland, 1980.

# Stories in Pictures

Members of the FFA Chapter in Water Valley, Mississippi, helped develop a 25-acre outdoor classroom, complete with log cabin, used in classes ranging from history to science. The "outdoor classroom" was the Chapter's Building Our American Communities (BOAC) project. (Photograph courtesy R.J. Reynolds Industries, Inc., sponsor of the BOAC program.)

Meats merchandising is a popular area of agriculture instruction at Hinds Junior College, Raymond, Mississippi. Here a student is shown learning the operation of equipment.